

NON-PUBLIC?: N
ACCESSION #: 9104100189
LICENSEE EVENT REPORT (LER)

FACILITY NAME: Nine Mile Point Unit 2 PAGE: 1 OF 3

DOCKET NUMBER: 05000410

TITLE: Reactor Scram Caused By Turbine Generator Trip
EVENT DATE: 09/05/90 LER #: 90-013-01 REPORT DATE: 04/01/91

OTHER FACILITIES INVOLVED: DOCKET NO: 05000

OPERATING MODE: 1 POWER LEVEL: 064

THIS REPORT IS SUBMITTED PURSUANT TO THE REQUIREMENTS OF 10 CFR
SECTION:
50.73(a)(2)(iv)

LICENSEE CONTACT FOR THIS LER:
NAME: John Conway, Manager Technical TELEPHONE: (315) 349-2698
Support
COMPONENT FAILURE DESCRIPTION:
CAUSE: SYSTEM: COMPONENT: MANUFACTURER:
REPORTABLE NPRDS:

SUPPLEMENTAL REPORT EXPECTED: No

ABSTRACT:

On September 5, 1990, at 0400 hours, with the Reactor Mode Switch in "RUN" and at approximately 64% rated thermal power (645 MWE), Nine Mile Point Unit 2 experienced an Engineered Safety Feature actuation. Specifically, an automatic reactor scram caused by a Turbine Generator trip which was initiated by a Generator field ground.

The root cause investigation determined that the most probable cause of the generator field ground was leakage current through the insulating teflon tubes in the power rectifier cubicles.

The immediate corrective action was to respond to the reactor scram and turbine trip in accordance with plant procedures. A Work Request was issued to investigate the Turbine Generator field ground. A plant change request to install a meter to monitor ground leakage current is being evaluated. In the interim, the resistance across the rectifier tube banks will be measured during each forced and planned outage.

END OF ABSTRACT

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I. DESCRIPTION OF EVENT

On September 5, 1990, at 0400 hours, with the reactor mode switch in "RUN" and at approximately 64% rated thermal power (645 MWE), Nine mile Point Unit 2 experienced an Engineered Safety Feature actuation. Specifically, an automatic reactor scram caused by a turbine generator trip, which was initiated by a turbine generator field ground.

There were no inoperable systems which contributed to this event. No plant system or component failure resulted from this event.

II. CAUSE OF EVENT

A root cause evaluation was performed utilizing Nuclear Division Procedure NDP-16.01, "Root Cause Evaluation". This evaluation has determined that the most probable cause of the generator field ground was leakage current through the insulating teflon tubes in the power rectifier cubicles. The teflon tubes have stator water flowing through them during operation. While in service, contaminants accumulate across the teflon tubes and allow leakage current to flow to ground, hence, tripping the generator field ground relay.

III. ANALYSIS OF EVENT

This event is reportable in accordance with 10 CFR 50.73 (a) (2) (iv), "Any event or condition that results in manual or automatic actuation of any Engineered Safety Feature (ESF) including the Reactor Protection System (RPS)".

There were no safety consequences to the plant or public as a result of this event. This event is bounded by the spectrum of events discussed in the Updated Safety Analysis Report in section 15.2.2, "Generator Load Rejection".

IV. CORRECTIVE ACTION

Immediate corrective action was to implement immediate operator actions for scram response per N2-OP-101C, "Plant Shutdown".

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IV. CORRECTIVE ACTION (cont.)

Additional corrective action included:

Issued Work Request (WR# 184457) for troubleshooting the Turbine Generator Field ground, which led to the replacement of the insulating teflon tubes in the power rectifiers for the generator.

A plant change request is being processed to install a meter to monitor the leakage current to ground. Therefore, the cause of the ground fault can be investigated and possibly corrected prior to a generator trip.

As an interim action, a work item will be added to the forced and planned outage work plans to measure the resistance across the rectifier tube banks to determine if the problem is recurring.

V. ADDITIONAL INFORMATION

A. Previous similar events:

There have been previous LER's where reactor scrams resulted from Turbine Generator trips; however, none were caused by a Generator Field ground.

B. Identification of components referred to in this LER:

COMPONENT SYSTEM IEEE-805 SYSTEM IEEE-803 COMPONENT

Turbine Generator TB TG

C. Failed components: none.

ATTACHMENT 1 TO 9104100189 PAGE 1 OF 1

NIAGARA
MOHAWK

NINE MILE POINT-UNIT 2/P.O. BOX 63, LYCOMING, NY 13093/
TELEPHONE (315) 343-2110

NMP 77366

April 1, 1991

United States Nuclear Regulatory Commission
Document Control Desk

Washington, DC 20555

RE: Docket No. 50-410
LER 90-13 Supplement 1

Gentlemen:

In accordance with 10 CFR 50.73, we hereby submit the following Licensee Event Report:

LER 90-13 Is being submitted in accordance with 10 CFR 50.73 Supplement 1 (a) (2) (iv), "Any event or condition that results in manual or automatic actuation of any Engineered Safety Feature (ESF)".

This report was completed in the format designated in NUREG-1022, Supplement 2, dated September 1985.

Very truly yours,

Martin J. McCormick Jr.
Plant Manager - NMP2

MJM/AC/lmc

ATTACHMENT

xc: Thomas T. Martin, Regional Administrator Region I
William A. Cook, Sr. Resident Inspector

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